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DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

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DOGM
MINERALS PROGRAM
FILE COPY

May 3, 1990

Mr. Rick York
General Manager
Moab Salt, Incorporated
P. O. Box 1208
Moab, Utah 84532

Rick
Dear Mr. York:

Re: Subsidence Monitoring, Cane Creek Mine, Moab Salt, Inc., M/019/005, Grand County, Utah

Thank you for meeting with us on April 3, 1990 to discuss the subsidence question at your Cane Creek site. Let me extend our apologies for not being able to forward our response to you before this. The Division has concluded that subsidence monitoring at the Cane Creek mine is unnecessary. The Division will not require subsidence monitoring at the Cane Creek facility nor any further evaluation of possible subsidence-related impacts.

After evaluating all of the subsidence-related information provided to the Division, including a September '89 Engineer's Subsidence Report, it is our opinion that the magnitude of subsidence over the mine and adjacent area will be negligible. We concur with Schnabel Engineering and Associates calculations that project a maximum potential subsidence of 1.2 feet over the mine and up to 4 inches under a section of the Colorado River. The overall impact to surface features and mine facilities will not be significant.


Our decision not to require an extensive subsidence monitoring program is based upon several facts and assumptions. Among those considered most important are: (1) the 2500 - 3000 foot thickness of mine overburden, (2) the plastic and "self-healing" nature of the actual mined salt formation as well as the numerous salt beds in the formations above the mine, (3) future mine development plans will not involve expansion into those critical sections near the river, (4) evidence which suggests that the underground mine cavity may actually be shrinking/contracting in extent, rather than expanding.

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The Division's principal subsidence concern is and has been to prevent or minimize any mine-related subsidence of the Colorado River. The subsidence report discusses a "worst-case" scenario of 4 inches of subsidence along a 1,000 foot section of the Colorado River. Due to the size and dynamic nature of the river itself, this degree of subsidence, if it were to occur, would not likely result in an adverse impact to the river. We believe it would be extremely difficult to confirm such a small amount of subsidence, let alone substantiate any noticable impact(s) to the river. It is our opinion that this amount of subsidence would be very short lived, even if it did occur. We also cannot be certain that subsidence under the river has not already occurred.

The Division accepts Schnabel's model and interpretation of the potential for subsidence in this area. Other impacts to surface features and mining facilities will also be insignificant, based on the amount and lateral extent of potential subsidence predicted in the report. Thank you for your patience and diligence in resolving this outstanding issue.

Sincerely,


Lowell P. Braxton
Associate Director/Mining

jb
cc: Loren Morten, BWPC
Minerals Staff
WMN/8-9